

ABSTRACT

A solenoid valve capable of handling a corrosive control fluid and developing an increased attraction force. The solenoid valve 1 is adapted such that a fixed core is located in a wound coil 29 and protruding through the lower surface of the coil, a plunger 16 holding a valve sheet 17 is supported by a plate spring 18 under the fixed core, the valve sheet 17 is normally retained in contact with a valve seat 13 by spring force of the plate spring 18, and the valve sheet 17 is separated from the valve seat against the spring force of the plate spring 18 when the coil 29 is energized. The fixed core comprises two parts vertically coupled, an upper one of which is a first fixed core 26 located in the coil 29 in non-contact with the control fluid, the first fixed core being made of a material having high magnetic permeability, and a lower one of which is a second fixed core 27 fitted, protruding downward, in the coil bobbin to cover the lower end of the coil bobbin, the second fixed core being made of a material having corrosion resistance to the high-corrosive control fluid.